

HADSON POWER 14 - BUENA VISTA

PSD Appeal Nos. 92-3, 92-4 92-5

REMAND ORDER

Decided October 5, 1992

Syllabus

The Southern Environmental Law Center, Clean Air for Rockbridge (CLEAR) and the County of Rockbridge have filed petitions seeking review of a Prevention of Significant Deterioration (PSD) permit issued to Hadson Power 14 - Buena Vista. The permit was issued by the Virginia Department of Air Pollution Control (VDAPC) pursuant to a delegation from the U.S. EPA, and thus is considered an EPA-issued permit for purposes of appeal. The permit authorizes the construction of a 66.5 megawatt coal-fired electric generating plant in Buena Vista, Virginia. The proposed facility is located 15 km north of the James River Face Wilderness and 56 km southwest of the Shenandoah National Park.

The most significant issue raised in the petitions is the rejection by VDAPC of adverse impact determinations by the Federal Land Managers (FLMs) of the Wilderness and the Park. Other issues raised include the exclusion of sources more than 100 km from the class I areas from the increment consumption analysis, exclusion of construction emissions from the air quality analyses, the adequacy of the emission limits for NO_x, coordination of the PSD review with the National Park Service's environmental impact assessment, alleged deficiencies in the notice provided on the draft permit, and various air quality modeling issues.

Held: VDAPC erred in rejecting the FLMs' adverse impact determinations. The state based its rejections largely on its interpretation of the burden on the FLMs, which interpretations EPA's Administrator specifically found to be invalid in *In re Old Dominion Electric Cooperative*, PSD Appeal No. 91-39 (Adm'r, Jan. 29, 1992). Here, unlike in *Old Dominion*, this error was not harmless because VDAPC has not articulated any alternative, legally supportable basis for rejecting the adverse impact determinations.

VDAPC also erred in categorically excluding construction emissions from the air quality analyses, in failing to give public notice of its intention to use an air quality model not previously subject to public scrutiny, and in providing an incomplete description of proposed increment consumption in its public notice of the draft permit. No error is found in VDAPC's determination of the NO_x emissions limitation, in the exclusion of sources more than 100 km from the class I areas from the increment consumption analysis, and in the degree of coordination with the National Park Service's environmental review. Review of the air quality modeling issues is denied due to the inadequacy of the petitions in stating a basis for review.

The permit is remanded to VDAPC to perform a substantive review of the adverse impact determinations, to reopen the public comment process, and to address the other deficiencies in accordance with this opinion.

Before Environmental Appeals Judges Nancy B. Firestone, Ronald L. McCallum and Edward E. Reich.

Opinion of the Board by Judge Reich:

Three petitions have been filed with the Environmental Appeals Board seeking review of a Prevention of Significant Deterioration (PSD) permit issued to Hadson Power 14 - Buena Vista ("Hadson Power") for the construction of a 66.5 megawatt coal-fired electric generating power plant in Buena Vista, Virginia. Pursuant to a delegation of authority from the U.S. EPA, Region III, the Virginia Department of Air Pollution Control (VDAPC) issued the final permit on April 18, 1992. Because of the delegation, the Virginia permit is considered an EPA-issued permit for purposes of federal law (40 C.F.R. §124.41 (1991); 45 Fed. Reg. 33,413 (May 19, 1980)), and is subject to review by the Agency under 40 C.F.R. §124.19 (1991).

PSD Appeal No. 92-3 was filed by the Southern Environmental Law Center (SELC) on behalf of itself and other various groups.¹ One of these groups, Clean Air for Rockbridge (CLEAR), and CLEAR's president (Michael Lonergan) and treasurer (Saundra Martis), also filed a separate petition raising additional reasons to review the permit (PSD Appeal No. 92-5). The third petition for review, PSD Appeal No. 92-4, was filed by the County of Rockbridge (the "County"). At the request of this Board, VDAPC provided a response to the petitions for review and submitted relevant portions of the administrative record.² Pursuant to leave granted by the Board, both SELC and CLEAR filed a reply to VDAPC's response.

¹ These groups are the Conservation Council of Virginia, National Parks and Conservation Association, Virginia Council of Trout Unlimited, Virginia Wildlife Federation, Sierra Club, Environmental Defense Fund, The Wilderness Society, Southside Concerned Citizens, Clean Air for Rockbridge (CLEAR), and Michael Lonergan and Saundra Martis, individually and as president and treasurer of CLEAR, respectively.

² Each petition will be referred to with reference to the petitioner, *e.g.*, "SELC Petition at ____." Likewise, VDAPC's responses will be referred to with reference to each petitioner, *e.g.*, "Response to SELC Petition at ____." Attachments to VDAPC's responses will be referred to as "Response to Petitions, Attachment ____."

Under the rules that govern this proceeding, a PSD permit ordinarily will not be reviewed unless it is based on a clearly erroneous finding of fact or conclusion of law, or involves an important matter of policy or exercise of discretion that warrants review. *See* 40 C.F.R. §124.19; 45 Fed. Reg. 33,412 (May 19, 1980). The preamble to the promulgation of these rules states that "this power of review should be only sparingly exercised," and that "most permit conditions should be finally determined at the Regional [or State] level." *Id.* The burden of demonstrating that review is warranted is on the petitioner. For the reasons set forth below, we conclude that petitioners have met the burden of showing that review of several issues is warranted, and that the permit should be remanded to the state for further action consistent with this opinion.³

BACKGROUND

Under the PSD program, owners or operators of major emitting facilities in attainment or unclassifiable areas⁴ must obtain a PSD permit prior to the construction of that facility. Clean Air Act (CAA) §165, 42 U.S.C. §7475. In May 1988, Hadson Power applied for a PSD permit to build a coal-fired power plant in Buena Vista, Virginia capable of producing 66.5 megawatts of electrical power. The proposed facility is located 15 km north of the James River Face Wilderness (the "Wilderness") and 56 km southwest of the Shenandoah National Park (the "Park"). One of the stated purposes of the PSD program is "to preserve, protect, and enhance the air quality in national parks [and] national wilderness areas." CAA §160(2); 42 U.S.C. §7470(2). Therefore, many of these parks and wilderness areas are designated as class I areas under CAA §162(a), 42 U.S.C. §7472(a). As discussed below in more detail, class I areas are entitled to additional protection under the PSD program. Both the Wilderness and the Park are class I areas.

³ Due to the extensive briefing of these issues on appeal, further briefing would not be helpful. *See In re Renkiewicz SWD-18*, UIC Appeal No. 91-4, slip op. at n.5 (EAB, June 24, 1992) ("Although §124.19 * * * contemplates that additional briefing will be submitted upon the grant of a Petition for Review, a direct remand without additional submissions is appropriate where, as here, it does not appear that further briefs on appeal would shed light on the issues to be addressed on remand.").

⁴ An attainment area is one in which the national ambient air quality standards for particular pollutants are met. PSD rules apply to these areas (and to these pollutants) to ensure that air quality is maintained. *See* 40 C.F.R. §52.21(a). PSD rules also apply to areas where attainment status cannot be classified. 40 C.F.R. §52.21(i)(3); *In re American Re-Fuel Company of Essex County*, PSD Appeal No. 86-1, unpub. op. at n.5 (Adm'r, Oct. 6, 1986). The City of Buena Vista and Rockbridge County are attainment areas for TSP and SO₂, and are unclassifiable for O₃, CO & NO_x. *See* 40 C.F.R. §81.347.

PSD permit applicants must demonstrate that emissions from a proposed facility "will not cause, or contribute to, air pollution in excess of," *inter alia*, certain statutorily allowable increases in pollution levels, called "increments." CAA §165(a)(3). Only small increments are available in class I areas. CAA §163(b)(1); 42 U.S.C. §7473(b)(1). Because the proposed facility is located in complex terrain within 100 km of two class I areas, existing models were determined to be invalid for the air quality analysis in this case. EPA approved a hybrid model created by Hadson Power from existing models to perform the increment consumption analysis. EPA allowed Hadson Power to divide the Park into northern and southern portions for the increment consumption analysis. See Memorandum from Executive Director, VDAPC, to Virginia Air Pollution Control Board Members at 5-3 (Mar. 26, 1992) (Response to Petitions, Attachment IV) (hereinafter "VDAPC Memo."). Hadson Power followed VDAPC's policy of examining only the effect of increment-consuming sources within 100 km of a class I area, and in one instance went beyond the minimum requirements of this policy by modeling sources far more than 100 km from the northern portion of the Park.

EPA has a longstanding policy of using significance levels to determine whether a proposed source will cause or contribute to an increment violation.⁵ According to VDAPC, the net effect of emissions from Hadson Power's proposed facility and previously permitted projects, after considering the offsets provided by Georgia Bonded Fibers, Inc. ("Georgia Bonded Fibers"),⁶ is to consume 48 to 91% of SO₂⁷ and 74% of NO_x increments available in the Wilderness, and 69 to 90% of SO₂ and 91% of NO_x increments available in the southern portion of

⁵ See 43 Fed. Reg. 26,398 (June 19, 1978) (adopting minimum amount of ambient impact that is significant). These significance levels, however, do not apply to analyses of increment consumption in class I areas. Hadson Power requested and received EPA approval to use significance levels proportional to the class II levels for the analysis of increment consumption in the Wilderness and the Park class I areas. See Memorandum from John Calcagni, Director, EPA Air Quality Management Division, to Thomas J. Maslany, Director, Region III Air, Radiation and Toxics Division (Sept. 10, 1991) (Response to Petitions, Attachment V).

⁶ Hadson Power intends to provide eight percent of its steam generation to Georgia Bonded Fibers, a manufacturer located across the Maury River from the proposed facility. While operating under this contractual arrangement with Hadson Power, Georgia Bonded Fibers has agreed to shut down its boilers, and the resulting emissions reduction will partially offset the emissions from Hadson Power. VDAPC Memo. at 5-34. At the time of permit issuance, Hadson Power and Georgia Bonded Fibers were negotiating this agreement. *Id.* These offsets were included in Hadson Power's increment consumption analysis in support of its permit application. *Id.*

⁷ These percentages relate to the different SO₂ increments with various averaging periods. See VDAPC Memo. at 5-11 to 5-12.

the Park. VDAPC Memo. at 5-2. VDAPC concluded that Hadson Power will not cause or contribute significantly to a class I increment violation in either area. *Id.* at 5-10 to 5-12.

The Clean Air Act also requires that written notice of a proposed PSD permit be provided to the Federal Land Manager (FLM) for a class I area that may be affected by emissions from the proposed facility. CAA §165(d)(2)(A). If the increment analysis indicates no violation of a class I increment, as VDAPC concluded was the case here, a permit may be issued unless the FLM demonstrates to the state's satisfaction that the proposed emissions will have an adverse impact on air quality-related values (AQRVs) in the class I area. CAA §165(d)(2)(C)(ii).

As discussed in more detail below, on January 31, 1992, the Park FLM⁸ submitted a final adverse impact determination for Hadson Power's draft permit. *See* Letter from James M. Ridenour, Director, National Park Service, to Wallace N. Davis, Executive Director, VDAPC (Jan. 31, 1992), SELC Petition, App. D (hereinafter "Park AID"). On February 3, 1992, the Wilderness FLM⁹ also submitted a final adverse impact determination for Hadson Power's proposed facility. *See* Letter from Joy E. Berg, Forest Supervisor, Jefferson National Forest, to Donald L. Shepherd, Director, Region II, VDAPC (Feb. 3, 1992), SELC Petition, App. C (hereinafter "Wilderness AID"). VDAPC rejected the FLMs' adverse impact determinations.

The final permit allows emissions of 797 tons per year (tpy) for NO_x, 358 tpy for SO₂, and 96.5 tpy for volatile organic compounds (VOCs). *See* Permit, Part I, Condition 22, Response to Petitions, Attachment X (hereinafter "Permit"). Hadson agrees to control its NO_x emissions through combustion controls and the application of selective catalytic reduction (SCR), which VDAPC decided is the best available control technology (BACT) for this pollutant. The permit reflects the use of SCR by requiring that the boilers be designed to achieve an emission rate of 0.10 lbs/10⁶ Btu. Permit, Part I, Condition 7. According to VDAPC, SCR has never been applied in circumstances like Hadson Power's, and to allow for contingencies that may result from the application of this technology, the permit allows NO_x emissions of 0.25 lbs/10⁶ Btu. Permit, Part I, Condition 20.

⁸ The Park FLM is the Assistant Secretary for Fish and Wildlife and Parks, Department of the Interior.

⁹ The Wilderness FLM is the Jefferson National Forest Supervisor in the Forest Service, Department of Agriculture. The Wilderness is located in the Jefferson National Forest.

The permit also allows review of the NO_x emission limit prior to initial issuance of an operating permit and each renewal of such permit. *Id.*

These appeals followed.¹⁰ The numerous issues raised in this appeal may be summarized as follows. First, several issues pertain to the increment consumption analysis. SELC maintains that the increment consumption analysis is faulty because of VDAPC's policy of excluding sources more than 100 km from a class I area. The County contends that Hadson Power's proposed emissions violate the SO₂ increment for the Park. In a related issue, SELC contends that the notice of the public hearing on the draft permit was defective because it did not include the predicted increment consumption at the Park. CLEAR argues that emissions from the construction of the proposed facility are required to be included in the air quality analysis. Second, several issues pertain to VDAPC's rejection of the adverse impact determinations. SELC contends that VDAPC's rejection of the FLMs' adverse impact determinations is clear error under *In re Old Dominion Electric Cooperative*, PSD Appeal No. 91-39 (Adm'r, Jan. 29, 1992). SELC and the County also contend that VDAPC failed to seriously consider or directly address the FLMs' specific determinations. Third, SELC asserts that the permit does not reflect emission limits based upon BACT for NO_x. Fourth, SELC and the County contest the adequacy and reliability of the modeling and air quality analysis submitted by Hadson Power in support of its permit application. Lastly, the County and CLEAR argue that the permit should not be issued until the National Park Service completes its environmental review of a proposed easement linking the proposed facility and Georgia Bonded Fibers.

ANALYSIS

I. Increment Consumption Analysis

The Clean Air Act requires all PSD permit applicants to show that emissions from the proposed facility "will not cause, or contribute to, air pollution in excess of any * * * maximum allowable increase * * * for any pollutant." CAA §165(a)(3).¹¹ As noted above, these maximum allowable increases are

¹⁰ Although VDAPC rejected both FLMs' findings, neither FLM sought review of the final permit decision under §124.19.

¹¹ Section 165(d)(2)(C)(i) of the CAA also requires an increment consumption analysis. It provides that when an FLM "files a notice alleging that emissions from a proposed * * * facility may cause or contribute to a change in the air quality in [a class I area], a permit shall not be issued unless the [applicant] demonstrates that emissions of particulate matter and sulfur dioxide will not cause or

(continued...)

called "increments." The Act also contains provisions which discuss the relationship between this requirement as it relates to class I areas and the affirmative responsibility of FLMs to protect the air quality-related values of such areas. Section 165(d)(2)(C), provides in part:

(ii) In any case where the Federal Land Manager demonstrates to the satisfaction of the State that the emissions from such facility will have an adverse impact on the air quality-related values (including visibility) of such lands, notwithstanding the fact that the change in air quality resulting from emissions from such facility will not cause or contribute to concentrations which exceed the maximum allowable increases for a class I area, a permit shall not be issued.

(iii) In any case where the owner or operator of such facility demonstrates to the satisfaction of the Federal Land Manager, and the Federal Land Manager so certifies, that the emissions from such facility will have no adverse impact on the air quality-related values of such lands (including visibility), notwithstanding the fact that the change in air quality resulting from emissions from such facility will cause or contribute to concentrations which exceed the maximum allowable increases for class I areas, the State may issue a permit.

Thus, the increment analysis determines who has the burden of demonstrating whether there is an adverse impact on air quality-related values and to whose satisfaction the demonstration must be made. If the analysis demonstrates an increment violation, the applicant bears the burden of demonstrating that the proposed facility will not have an adverse impact. If an increment violation is not established, the FLM bears the burden of demonstrating that the proposed facility will have an adverse impact.

¹¹(...continued)

contribute to concentrations which exceed the maximum allowable increases for a class I area." SELC contends that the Park's September 25, 1990 letter to VDAPC was notice for the purposes of this section. SELC Petition at 24, n.14. In other words, SELC contends that the Park FLM's September 25, 1990 letter triggered an obligation for Hadson Power to perform an increment analysis. We cannot address this issue, as the September 25, 1990 letter is not in the record before us. In any event, Hadson Power was required to perform an increment consumption analysis under CAA §165(a)(3), and there has been no showing that this analysis would have been any different if performed pursuant to CAA §165(d)(2)(C)(i).

VDAPC policy is "that sources beyond 100 kilometers from class I areas do not consume increment." Response to SELC Petition at 8. Therefore, "[i]t has been the consistent policy of the VDAPC to require analyses of the cumulative impact due to appropriate class I increment-consuming sources within 100 km of either of the two class I areas in Virginia." *Id.* Hadson Power performed an increment consumption analysis consistent with VDAPC policy. SELC contends that this policy, by excluding sources beyond 100 km, fails to consider all increment-consuming sources. SELC represents that both the VDAPC and FLMS agree that a substantial portion of the air pollution problem at the two class I areas results from transport from sources more than 100 km away from those areas, and SELC asserts that some of those sources clearly consume class I increment. SELC Petition at 24-25. According to SELC, Hadson Power cannot demonstrate whether it will violate an increment without considering these sources, and therefore VDAPC clearly erred in issuing the permit based on this allegedly incomplete increment analysis.

SELC disputes VDAPC's assertion that its policy is consistent with the limitations of air quality modeling and exceeds the requirements of many other states. SELC lists a few states that it says routinely model increment-consuming sources beyond 100 km. SELC argues that VDAPC's "categorical determination that sources beyond 100 km are not class I increment-consuming sources is clearly illegal and contrary to EPA policy." SELC Petition at 25.

VDAPC explains and defends its policy as follows:

The DAPC policy that sources beyond 100 kilometers from Class I areas do not consume increment is not contrary to law and policy. It has been the consistent policy of the VDAPC to require analyses of the cumulative impact due to appropriate Class I increment-consuming sources within 100 km of either of the two Class I areas in Virginia. This is done using EPA-approved models and techniques. The models used are widely understood by experts in the field to overpredict pollutant concentrations at great distances (in excess of 50 km). It is the VDAPC's opinion that cumulative Class I impact analyses should be restricted to increment consuming sources within 100 km of Class I areas. The above-described policy was carefully designed to be conservative, that is, designed to overestimate increment consumption in order to provide as much protection of the Class I increment as is reasonable.

Response to SELC Petition at 8.

Both SELC and VDAPC discuss the Administrator's recent decision in *Old Dominion, supra*. In that case, petitioners (including SELC) challenged a permit issued by VDAPC to Old Dominion because, among other reasons, Old Dominion did not perform an increment analysis relative to impacts at the Park. Old Dominion will be located approximately 135 km from the Park's nearest boundary. VDAPC indicated that no demonstration was required since its policy is to require a class I increment analysis only for sources proposing to locate within 100 km of a class I area. In upholding VDAPC's action, the Administrator noted that the demonstration at the Wilderness, which is closer to Old Dominion's proposed location and therefore potentially subject to even greater adverse impacts, showed that class I increments would not be violated there. The Administrator also mentioned as a consideration "that EPA has not issued any final guidance that would contravene the State's policy." *Old Dominion*, unpub. op. at 6. In a footnote to this statement, the Administrator said:

Draft guidance released by EPA in October 1990 and distributed to the States recommends analysis beyond 100 kilometers when there are potential impacts on a class I area. While this guidance has not yet become final, it reflects EPA's concern that increments analysis include class I areas when there are reasonable questions about a proposed facility's impacts on such areas. As a draft policy, however, it does not have the same weight as a binding Agency position and does not prohibit the States from adopting their own policies that are consistent with the Clean Air Act and applicable regulations. Nevertheless, EPA's draft policy reflects the Agency's latest thinking on when it is appropriate to require increment analyses for class I areas, and is based upon the availability and feasibility of modeling tools for assessing such impacts. For this reason, Virginia should consider reexamining its current policy.

Old Dominion, unpub. op. at n.6.

SELC, in its petition, focuses on the Administrator's advice to Virginia to reexamine its current policy. VDAPC, on the other hand, focuses on the statement that as a draft policy, the 1990 draft guidance does not have the same weight as a binding Agency position and does not prohibit states from adopting their own policies consistent with the Act and implementing regulations.

The issue presented in *Old Dominion* was somewhat different than the issue presented here. In *Old Dominion*, the issue was whether a proposed source more than 100 km from a class I area needed to do an increment analysis. Here, the issue is whether, when a proposed source locating within 100 km of a class I area does its increment analysis, it must consider other sources more than 100 km from the class I area. However, the underlying technical issues, relating to the likelihood of a substantial impact on a class I area of a source more than 100 km away and the accuracy of modeling at such distances, are essentially the same.

We find the *Old Dominion* decision conclusive as to the effect of the 1990 draft guidance, which continues to remain in draft form. For the reasons stated in the footnote in *Old Dominion* previously quoted, the draft guidance does not provide a basis for overturning the state's action.

However, SELC also argues that the VDAPC policy is contrary to current EPA policy, not just the draft guidance discussed in *Old Dominion*. In support of its position, SELC quotes from three documents.

The first document cited is the preamble to the 1978 PSD regulations. In discussing comments received on the "Guideline on Air Quality Models," one issue identified was whether the modeled estimate of source impact should be limited to a certain distance or a minimum numerical impact or both. In addressing this issue, the document says:

[T]he Administrator intends to limit generally the application of air quality models to a downwind distance of no more than 50 kilometers. This is because dispersion parameters commonly in use are based on experiments relatively close to sources, and extending these parameters to long downwind distances results in great uncertainty as to the accuracy of the model estimates at such distances. Also, since the air quality impact of many sources falls off rapidly to insignificant levels, EPA does not intend to analyze the impact of a source beyond the point where the concentrations from the source fall below certain levels (which are generally based on the Class I increments).

43 Fed. Reg. 26,398 (June 19, 1978).

The preamble then states, in the language cited by SELC:

However, since the 1977 Amendments provide special concern for Class I areas, any reasonably expected impacts for these areas must be considered irrespective of the 50 kilometer limitation or the above significance levels.

Id.

A second document cited by SELC is EPA's "Guideline on Air Quality Models," revised as of July 1986, which states at pages 7-8 that "[s]ince in many cases Class I areas may be threatened at distances greater than 50 km from new sources," some procedure is needed to determine if a significant impact will occur and identify the model to be used in such cases.

Finally, SELC quotes from a 1979 memorandum ¹² which contains the following sentences: "Very large sources, however, may be expected to affect 'air quality related values' at distances greater than 100 kilometers. The appropriate Federal Land Manager should be notified if such impacts are expected on a case by case basis." SELC reasons that if the FLM is to be notified, the potential impact of these sources should be assessed through modeling.

VDAPC, in its response to SELC's petition, does not address the interpretation or significance of any of these documents but relies solely on the rationale for its policy as previously discussed, the lack of binding effect of the 1990 draft guidance, the fact that the analysis here was consistent with that of several other sources recently permitted in Virginia none of whose permits were remanded, and that neither FLM petitioned for review of the permit. ¹³

We find that the documents cited by SELC do not clearly establish a requirement to model sources beyond 100 km. The 1978 Federal Register does evidence that EPA intended the air quality analysis for class I areas to extend to "any reasonably expected impacts" without regard to the 50 km limit otherwise applicable. However, this preamble language is not self-executing and has to be viewed in light of subsequently developed policy and Agency practice.

¹² Memorandum from David G. Hawkins, Assistant Administrator for Air, Noise, and Radiation to Regional Administrators (Mar. 19, 1979) (entitled "Notification to Federal Land Manager Under Section 165(d) of the Clean Air Act").

¹³ Concerning this last argument, *see infra* note 27.

EPA's most current "Guideline on Air Quality Models" is the July 1986 revision (supplemented in 1987), which at Section 7.2.6. states:

Since in many cases Class I areas may be threatened at distances greater than 50 km from sources, some procedure is needed to determine (1) if a significant impact will occur, and (2) identify the model to be used in setting an emission limit if the Class I increments are threatened (models for this purpose should be approved for use on a case-by-case basis as required in Section 3.2). This procedure and the models selected for use should be determined in consultation with the EPA Regional Office and the appropriate FLM.

While this guideline recognizes the potential threat to air quality from sources beyond 50 km, it only requires that a procedure and models be established in consultation with the EPA Regional Office and the appropriate FLM.

Region III, while encouraging the state to consider revising its policy, nonetheless appears to have accepted Virginia's policy relative to increment analysis as consistent with current federal law and EPA policy.¹⁴ We note that in the Region's comments on the Hadson Power draft permit,¹⁵ the Region did not raise any objection to the state's increment analysis. There were extensive discussions between the Region and Virginia on modeling issues yet it does not appear that the Region objected to the application of Virginia's policy.¹⁶ Under those circumstances, VDAPC satisfied its obligation under current policy of consulting with the EPA Regional Office regarding the development of procedures and models for considering sources beyond 50 km.¹⁷

Finally, while the 1979 memorandum recognizes that very large sources more distant than 100 km can affect AQRVs, this memorandum is focused on the

¹⁴ This is consistent with the Administrator's statement in *Old Dominion* that "EPA has not issued any final guidance that would contravene the State's policy." *Old Dominion*, unpub. op. at 6.

¹⁵ Letter from Bernard E. Turlinski, Chief, Air Enforcement Branch, Region III to Wallace N. Davis, Executive Director, VDAPC (Jan. 31, 1992), Response to Petitions, Attachment VII.

¹⁶ See Response to Petitions, Attachment VII.

¹⁷ The record is less clear as to VDAPC's consultation with the FLMs. We note, however, that this is the most recent in a series of PSD permits issued by VDAPC for sources impacting these class I areas. Through the course of these permit proceedings, the FLMs have presented their positions to, and engaged in a dialogue with, VDAPC.

process for notifying FLMs and cannot by itself be interpreted as requiring inclusion of such sources in the increment analysis.

We recognize that Hadson Power did conduct increment consumption modeling including sources far more than 100 km from the northern part of the Park.¹⁸ This does not change our analysis. The fact that a permittee goes beyond the minimum requirements of VDAPC policy does not in any way invalidate an otherwise acceptable policy. Indeed, it would be poor public policy to create such a strong disincentive for going beyond minimum requirements.

Having determined that Virginia policy does not contravene current Agency policy, we would strongly reiterate the Administrator's suggestion that Virginia reexamine its current policy, in light of the potentially serious consequences to air quality of its exclusion policy. We would similarly urge the Agency to move expeditiously to issue its final guidance addressing this concern, which the state, as the Agency's delegatee, will be constrained to follow.

The County contends that even excluding sources beyond 100 km, Hadson Power's modeling showed it would contribute to violations of the class I three-hour increment for SO₂ in the Park, and therefore the permit should not have been issued. Specifically, the County contends that the allowable three-hour SO₂ increment for the Park is 25 ug/m³, and that Hadson Power's modeling showed that it will consume 32.1 ug/m³.

VDAPC does not contest that Hadson Power's preliminary modeling predicted increment violations in the Park. VDAPC concluded, however, that the violations are due primarily to two previously permitted but not yet constructed sources, not Hadson Power, and that Hadson Power would contribute only a small amount to these violations. Hadson Power requested and received approval from VDAPC (and EPA) to conduct modeling with different meteorological data.¹⁹

¹⁸ It is not alleged that sources beyond 100 km were included in the increment consumption analyses for the southern portion of the Park or for the Wilderness. As noted above, VDAPC concluded that Hadson Power would not violate any increment in either the northern or southern portions of the Park or in the Wilderness.

¹⁹ See VDAPC Memo. at 5-4, which states:

EPA policy normally requires that the applicant (Hadson-14) must use its own meteorological data in assessing the effects of multiple sources. When Hadson modeled Coors [another increment-consuming source] * * * emissions using Buena Vista meteorological data, increment violations were *

(continued...)

In addition, because significance levels for class I increment consumption had not been established by EPA, VDAPC proposed, and EPA approved, that for this permit, the class I significance levels be proportional to those used for class II areas.²⁰ Based on this analysis, VDAPC concluded that Hadson Power would not contribute significantly to the violation. The County has not demonstrated that this conclusion is in error.

In another issue related to the increment analysis, SELC argues that the public notice of the hearing on the draft permit was defective because it failed to include the predicted amount of increment consumption in the Park. (The notice did provide the amount for the Wilderness.) VDAPC regulations require that the public notice state "the degree of increment consumption that is expected from the source." Virginia Air Pollution Control Regulations §102-08-02(R)(2)(c). VDAPC, which does not deny the omission, responds that the public notice was not defective because it presented the worst-case class I increment consumption expected from Hadson Power's emissions. This worst-case consumption was expected in the Wilderness, not the Park. According to VDAPC, the "degree of increment consumption that is expected" does not require numerous increment consumption values at various receptors, only the maximum increment consumed. In addition, VDAPC notes that the actual figures were sent to the FLMs and made available at the VDAPC Roanoke office and at local public libraries in Buena Vista and Lexington.

We find the VDAPC's explanation unpersuasive. The Clean Air Act requires meaningful public participation in the PSD permitting process. Section 165(a)(2) requires a public hearing allowing for interested persons "to appear and submit written and oral presentations on the air quality impact of such source, alternatives thereto, control technology requirements, and other appropriate considerations." In implementing this provision, the Agency regulations defining the requirements for state PSD plans require the reviewing authority to:

Notify the public, by advertisement in a newspaper of general circulation in each region in which the proposed source would

¹⁹(...continued)

* * predicted. In June 1991 [VDAPC] proposed to EPA that Hadson be allowed to use meteorological data most appropriate to each region of [the Park]; in August 1991, EPA agreed to let Hadson model Coors with Coors meteorological data, and the increment violation was resolved.

²⁰ See *supra* note 5.

be constructed, of the application, the preliminary determination, *the degree of increment consumption that is expected from the source* or modification, and of the opportunity for comment at a public hearing as well as written public comment.

40 C.F.R. §51.166(q)(2)(iii) (emphasis added). The state regulation cited by SELC is identical to this federal regulation.

To allow for meaningful comment, the public must be apprised of all of the proposed source's increment consumption as determined through the modeling analysis. We do not believe that the phrase "degree of increment consumption" can be read as allowing for providing data at only one location, albeit the one with the greatest projected consumption. Different potential commenters may have an interest in different areas to be impacted and would want, and would reasonably be entitled to, available data on increment consumption at the area of their particular concern. Otherwise, their ability to comment on the air quality impact and proposed alternatives would be severely limited. While VDAPC indicates that such data were made available at designated locations within the vicinity of the proposed plant, the regulation specifically requires these data to be in the public notice. VDAPC will be required to provide a new public notice in response to the remand ordered by this decision, and such notice should detail all of the increment to be consumed by the proposed source, including any increment consumed at the Park.

Finally, CLEAR objects to the permit on the grounds that Hadson Power failed to include emissions from the construction of the proposed facility in its demonstration that neither a national ambient air quality standard or an increment will be exceeded. According to CLEAR, inclusion of construction emissions is required by the Clean Air Act and federal and state regulations.

CLEAR cites section 165(a)(3) of the Clean Air Act, which provides that no major emitting facility may be constructed unless "the owner or operator of such facility demonstrates * * * that emissions from *construction* or operation of such facility will not cause or contribute to air pollution in excess of [any applicable PSD increment or national ambient air quality standard.]" (Emphasis added.) CLEAR also cites Virginia Air Pollution Control Regulations sections 120-08-02(L) and (B)(3), which respectively require the air quality demonstrations to include "secondary emissions" and define "secondary emissions" as "emissions which would occur as a result of the construction or operation of a major stationary source * * * but do not come from the major stationary source

* * * itself." In addition, CLEAR points to the Clean Air Act's prohibition of construction, rather than just operation, prior to permit issuance as additional authority.

VDAPC, in its response, states that "[t]here is no requirement to include construction site emissions associated with the proposed source in its air quality analysis." Response to CLEAR Petition 1. VDAPC further states:

In addition, the secondary emissions must be specific, well-defined and quantifiable. Likewise, temporary emissions, such as those from construction, would have to be quantifiable to be included in any demonstration of impact. EPA guidance does not include any suggested methodology to quantify emissions from the temporary construction phase.

Id.

Despite VDAPC's rather categorical statement that there is no requirement to include construction emissions in the air quality analysis, such emissions generally must be considered. In addition to the language of section 165(a)(3) itself, this is clearly demonstrated by the inclusion of a provision in the PSD regulations allowing, upon written request of a governor, the Administrator to exclude from the increment analysis "concentrations of particulate matter attributable to the increase in emissions from construction or other temporary emission-related activities of new or modified sources." 40 C.F.R. §52.21(f)(3). There would be no reason to include a provision relating to the exclusion of construction emissions unless they were otherwise included.²¹

The obligation to consider construction emissions was also clearly articulated in *Save the Valley, Inc. v. Ruckelshaus*, 565 F. Supp. 709, 710 (D. D.C. 1983) ("Pursuant to the plain language of the statute and its obvious intent to regulate pollution attendant to construction * * *."). Thus, VDAPC was in error in citing as a basis for exclusion of construction emissions the absence of any legal obligation to consider them.

²¹ It is unclear whether this potential exclusion could be available here. The preamble to the promulgation of this provision indicates that it is applicable only where the state has a fully approved PSD program. See 45 Fed. Reg. 52,719 (Aug. 7, 1980). However, the regulation on its face is not so limited. In any event, there clearly has been no request from the governor, the prerequisite to invoking this provision.

It is possible that the construction emissions will be in whole or in part fugitive in nature.²² To the extent this is the case, fugitive emissions must be included only if quantifiable.²³ VDAPC asserts that there is no methodology for quantifying construction emissions. However, in the absence of a detailing of what the construction emissions are expected to be, it is not possible to determine whether construction emissions at Hadson Power can be properly excluded on this basis.

In addition, 40 C.F.R. §52.21(i)(6) provides as follows:

The requirements of paragraphs (k), (m) and (o) of this section [relating to source impact analysis, air quality analysis, and additional impact analysis] shall not apply to a major stationary source or major modification with respect to a particular pollutant, if the allowable emissions of that pollutant from the source, or the net emissions increase of that pollutant from the modification:

(i) Would impact no Class I area and no area where an applicable increment is known to be violated, and

(ii) Would be temporary.

Construction emissions can be considered temporary. It is possible that because construction emissions are predominately of particulate matter and there have been no concerns about particulate matter impacts raised in this appeal, this provision might be applicable. However, in the absence of a clear description of proposed construction emissions and how this provision might apply, we cannot sustain VDAPC's action based on speculation as to the possible applicability of this provision.

²² "Fugitive emissions" are defined as "those emissions which could not reasonably pass through a stack, chimney, vent or other functionally equivalent opening." 40 C.F.R. §52.21(b)(20).

²³ See New Source Review Workshop Manual at c.47 (Draft, Oct. 1990) (restating current policy that "[t]he applicant must also include any *quantifiable* fugitive emissions from the proposed source or any nearby sources") (emphasis added). We note that VDAPC also argues that "secondary emissions" must be quantifiable but we do not believe these emissions would necessarily be secondary as opposed to primary. Secondary emissions are those "which would occur as a result of the construction or operation of a major stationary source * * * but do not come from the major stationary source * * * itself." 40 C.F.R. §52.21(b)(20). Here, presumably much of the emissions would come from the construction of the facility itself.

VDAPC's exclusion of construction emissions based on its misreading of its legal obligations, and its generalized assertion that such emissions must be and cannot be quantified, cannot be sustained. VDAPC, on remand, must supplement the record with a full description of anticipated construction emissions and must either include those emissions in its air quality analysis, or show why they can be properly excluded.

II. *Adverse Impact Determinations*

A. *Legal Background*

The Clean Air Act contemplates an active role for FLMs in the PSD permitting process. An FLM is entitled to notice of a proposed PSD permit if emissions from the proposed source may affect the FLM's class I area. CAA §165(d)(2)(A). The FLM has an "affirmative responsibility to protect" the AQRVs in the class I area. CAA §165(d)(2)(B). The FLM does this by determining whether the emissions from the proposed source will have an adverse impact on the AQRVs in the class I area.²⁴

As noted above, the outcome of the increment consumption analysis establishes who bears the burden of proving the presence or absence of an adverse impact. According to VDAPC, the increment consumption analysis in this case indicates that Hadson Power's proposed emissions will not cause or significantly contribute to an increment violation. Therefore, in this case, the FLMs bear the burden of demonstrating an adverse impact.²⁵ Under the applicable Clean Air Act provision, if the FLM demonstrates to the satisfaction of the state²⁶ that emissions from the proposed source will have an adverse impact on

²⁴ As explained with reference to the increment consumption analysis arguments, the FLM will have to either establish the existence of an adverse impact or certify its absence, depending upon who bears the burden of proof on this issue. See CAA §§165(d)(2)(C)(ii) and (iii).

²⁵ As previously stated, this permit is being remanded for VDAPC to determine whether construction emissions must be included in the air quality analysis. If VDAPC determines that they must be, and if the results of the increment consumption analysis show that the proposed facility will cause or significantly contribute to an increment violation, Hadson Power will assume the burden of demonstrating to the FLMs the absence of an adverse impact.

²⁶ Because EPA is the final permitting authority for the Hadson Power facility, notwithstanding the delegation to Virginia, it is ultimately EPA's "satisfaction" with the FLM's finding that is at issue. See *Citizens for Clean Air v. EPA*, 959 F.2d 839 (9th Cir. 1992) (in reviewing PSD permit issued by delegated state, court focused not on the state action but instead on EPA -- whether Agency's final decision, in an administrative appeal under 40 C.F.R. §124.19, allowing the
(continued...)

the AQRVs in the class I area, the permit shall not be issued. CAA §165(d)(2)(C)(ii).

States do not have unfettered discretion to reject an FLM's adverse impact determination. *Old Dominion*, unpub. op. at n.9. If a state determines that an FLM has not satisfactorily demonstrated an adverse impact on AQRVs from the proposed facility, the state must provide a "rational basis" for such a conclusion, "given the FLMS' affirmative responsibility and expertise regarding the Class I areas within their jurisdiction." 50 Fed. Reg. 28,549 (July 12, 1985). Arbitrary and capricious rejections of adverse impact determinations are not sustainable. *Old Dominion*, unpub. op. at n.9.

B. *The Wilderness*

The Wilderness FLM identified water quality as the AQRV that would be adversely impacted by Hadson Power's proposed emissions. Specifically, the Wilderness FLM concluded that based on Hadson Power's modeling, the proposed facility's projected emissions will increase SO₂ concentrations in the Wilderness by two to three percent, which in turn will produce a 0.01 unit decrease in pH and a 1 ueq/l decrease in acid neutralizing capacity (ANC) in the Wilderness' streams, which are already sensitive to acidification. Wilderness AID at 4. These consequences will be particularly adverse in Belfast Creek, a primary stream in the Wilderness identified by Forest Service screening criteria as having very high acid levels and thus unable to tolerate additional sulfur loading. *Id.* at 5.

VDAPC rejected the Wilderness FLM's adverse impact determination because the FLM "provided no definitive data as to the specific effects that a small change in sulfur deposition, acid neutralizing capacity, and pH units will have on the streams" in the Wilderness. VDAPC Memo. at 5-13, 5-86. In addition, VDAPC expressed its "uncertainty" about some assumptions used in the adverse impact analysis. *Id.* at 5-88. The only assumption VDAPC singled out is the FLM's assumption that "all dry/SO₂ deposited was converted to sulfate which affects the acid neutralizing capacity of the soil." *Id.*

VDAPC also rejected the Wilderness FLM's adverse impact determination on the ground that the Forest Service criteria for determining

²⁶(...continued)
permit to issue was reasonable).

adverse impacts are inadequate because they fail to "include a scientifically accepted minimum impact below which a specific source's contribution would be considered insignificant. This is a long-standing fundamental principle of federal and state PSD * * * permitting policies and procedures." VDAPC Memo. at 5-88. VDAPC further stated that it cannot accept "the notion that 'any' emission increase and subsequent increase in pollutant deposition is an acceptable demonstration of adverse impact." *Id.*

On appeal, SELC contends that VDAPC rejected the Wilderness FLM's quantified adverse impact finding without responding specifically to it. SELC asserts that because water quality is the AQRV of concern, the FLM need not, as VDAPC would require, demonstrate more than an adverse impact on water quality. In other words, SELC argues that having demonstrated an adverse impact on water quality, the FLM need not go any further and demonstrate the effects of that adverse impact on water quality. SELC Petition at 3-4. In addition, SELC states that VDAPC did not explain how or why the FLM's assumption on sulfur deposition invalidated the adverse impact determination. *Id.* at 5-6.

SELC notes that instead of addressing the demonstration of adverse impact, VDAPC flatly stated that it cannot accept the notion that any increase in pollutant deposition demonstrates adverse impact. SELC contends the Wilderness FLM specifically quantified the adverse impact, and thus does not base her determination on the assumption that "any" emission increase produces an adverse impact. SELC Petition at 2-7. SELC further contends that *Old Dominion* plainly rejected VDAPC's position that *de minimis* criteria are required for evaluating an adverse impact determination. *Id.* at 11-14. In sum, SELC contends that VDAPC erroneously failed to consider the FLM's conclusions. Similarly, the County contends that VDAPC did not seriously consider the adverse impact determinations. VDAPC responds without reference to *Old Dominion* by merely repeating its responses to the comments on the draft permit.²⁷

²⁷ In addition, VDAPC repeatedly notes (here and with reference to other arguments) that neither FLM petitioned for review of the final permit decision. Although VDAPC does not indicate why this fact is relevant, we assume VDAPC believes that the absence of a petition by the FLMs demonstrates acquiescence to issuance of the final permit. We disagree with the inference made by VDAPC from the FLMs' failure to file a petition. Neither adverse impact determination has been withdrawn. Indeed, after the final permit was issued, the Wilderness FLM reiterated her concerns expressed in the adverse impact determination. SELC Reply, App. 7. There are many possible considerations that may affect a FLM's decision whether to file a petition for review, and speculation as to those reasons is not productive. Therefore, we find it irrelevant that neither FLM petitioned for review of the permit.

We conclude that VDAPC clearly erred by failing to consider the merits of the specific quantified adverse impact demonstration submitted by the Wilderness FLM. Although VDAPC attempts to use much of the same reasoning it employed in *Old Dominion*, we conclude that the facts of this case require a different outcome.

In *Old Dominion*, as in this case, the Wilderness FLM predicted an adverse impact on water quality, namely, that the proposed emissions would produce a two to nine percent decrease in ANC and pH in the Wilderness' streams.²⁸ VDAPC rejected this finding, identifying several reasons why the FLM may have overestimated the impact of the proposed emissions.²⁹ VDAPC also relied upon the absence of guidance as to significance or *de minimis* levels for determining adverse impacts as a basis for rejecting the Wilderness FLM's finding. The Administrator plainly rejected this reasoning, stating "[n]ational guidance on *de minimis* impacts for class I air quality related values is in no way a prerequisite to a reasonable determination by a permit-issuing authority that the [FLM] has demonstrated a proposed source will have adverse impacts." *Old Dominion*, unpub. op. at n.20.

VDAPC's reliance in this case upon the reasoning plainly rejected in *Old Dominion* is clearly erroneous. VDAPC has not pointed to, and we have not found, any authority to indicate that national standards, including a minimum standard, for assessing adverse impacts are a "long-standing fundamental principle" of PSD permitting procedures. The only authority on this issue, *Old Dominion*, unequivocally indicates the opposite.

In describing its reasons for rejecting the Wilderness FLM's adverse impact determination, VDAPC stated that it "cannot accept the notion that 'any' emission increase * * * is an acceptable demonstration of adverse impact." VDAPC Memo. at 5-88. The Wilderness FLM, however, does not base her adverse impact determination on "any" emission increase, but on the projected impact of a two to three percent increase in SO₂ concentrations that will result from Hadson Power's proposed emissions. VDAPC's reasoning seems to ignore

²⁸ Thus, in *Old Dominion*, there was no dispute that the Wilderness FLM quantified the adverse impact. Instead, the issue was whether this quantified, adverse impact was credible, and VDAPC concluded it was not.

²⁹ In sum, these reasons were that the FLM did not supply its calculations until after the public comment period, that modeling conducted by the EPA (RELMAP) showed pollutant deposition one-tenth of that estimated by the FLM, and that another Region had questioned a similar analysis in another case. *Old Dominion*, unpub. op. at 12.

this fact, which distinguishes this case from the Park FLM's adverse impact determination in *Old Dominion*, where the determination rested on the unproven assumption that any emissions from the proposed facility would have an adverse impact. *Old Dominion*, unpub. op. at 14.

The Forest Service has developed criteria for assessing adverse impacts, which are detailed in the Wilderness AID. While VDAPC has the discretion to accept or reject an adverse impact determination founded on those criteria, it must provide a rational basis for doing so and cannot summarily reject the determination because the criteria do not contain a *de minimis* impact or significance level that is not required by law. VDAPC's approach of summarily rejecting an adverse impact determination because of the lack of such guidance or criteria is an abdication of its responsibility to assess an adverse impact determination,³⁰ and as such eviscerates some of the class I area protection provided by the Clean Air Act.

In *Old Dominion*, VDAPC's reliance on invalid reasoning was harmless error because VDAPC also relied upon other reasonable grounds for rejecting the adverse impact determination, namely that the FLM overestimated the impact of the proposed emissions. Here, unlike the situation in *Old Dominion*, VDAPC has not presented any other reasonable basis for rejecting the Wilderness AID.³¹

VDAPC asserts that the Wilderness AID was inadequate because it failed to provide "definitive data as to the specific change that a small change in sulfur deposition, [ANC] and pH units will have on the streams" in the Wilderness. VDAPC Memo. at 5-86. This statement, as SELC correctly notes, fails to acknowledge that *water quality* is the AQRV of concern. The FLM is required only to state the impact *on* the AQRV, and demonstrate that it is adverse. In this case, the FLM identified and quantified the impact on the AQRV of concern, water quality, by showing that the proposed emissions would increase acidification by producing a 0.01 unit decrease in pH and a 1 ueq/l decrease in ANC. In addition, the FLM qualitatively described why this impact is adverse by indicating that streams in the Wilderness are already acid sensitive and that increases in acidification could reasonably be expected to produce a shift towards

³⁰ See *Old Dominion*, unpub. op. at 13.

³¹ With respect to the specific grounds relied upon in *Old Dominion*, (*see supra* note 29), the only one raised in this case concerns the use of RELMAP. SELC argues, and VDAPC agrees, that RELMAP is irrelevant on this issue owing to the proximity of the proposed source and the Wilderness. In addition, VDAPC states that even though RELMAP has been used for other permits, its results were "inconclusive and not a major factor" in this case. Response to SELC Petition at 7.

more acid tolerant species. VDAPC apparently would require an FLM to quantify the adversity produced by an impact on an AQRV, for example, by quantifying the degree of shift to more acid tolerant species. This would impose a requirement not found in the Clean Air Act. *See* CAA §165(d)(2)(C)(ii). Therefore, VDAPC erred in rejecting the Wilderness AID on this ground.

VDAPC also expresses an "uncertainty" about some assumptions the Wilderness FLM relied upon. VDAPC specifically mentions only one assumption, that "all dry deposited SO₂ was converted to sulfate," which affects acidification, and summarily states that this assumption "increases the likelihood that the analysis may overestimate the pH unit change as calculated in the * * * adverse impact determination." VDAPC Memo. at 5-88. VDAPC, however, failed to detail why this assumption was in error and how it would lead to overestimation.³² VDAPC does not provide an alternative or preferable assumption. This is in stark contrast to the scenario in *Old Dominion*, where Agency modeling confirmed that the FLM overestimated impacts.

For these reasons, we conclude that VDAPC clearly erred by relying on reasoning rejected in *Old Dominion* and failing to consider the merits of the adverse impact determination as required. Because the record shows that VDAPC did not have any other clear, supportable rationale for rejecting the Wilderness AID, the error is not harmless. Consequently, we remand this permit to VDAPC for reconsideration of the merits of the Wilderness FLM's adverse impact determination in accordance with this opinion.

SELC raises other issues in its petition that may reappear in the remand proceedings, and therefore we will briefly address them here. SELC contends that VDAPC's failure to consider the cumulative impact of all previously permitted sources on the class I areas is clear error. SELC relies upon the statement in *Old Dominion* that "in determining whether a proposed source will cause an adverse impact on visibility, the cumulative visibility impacts of the pending PSD applicant and all PSD-permitted sources, including those not yet constructed, must be assessed." *Old Dominion*, unpub. op. at n.24.³³ SELC contends that VDAPC failed to meet this requirement because it did not include in the cumulative analysis previously permitted sources beyond 100 km of the class I

³² VDAPC also failed to respond to evidence provided with the petition that the assumption is a valid one. *See* SELC Petition, Attachments F and G.

³³ In *Old Dominion*, other PSD permitted sources were examined for their cumulative impact on visibility. SELC argues, and we agree, that non-visibility AQRVs should be similarly assessed.

areas. These sources were not included because they were not included in Hadson Power's increment modeling.

VDAPC responds by referring to its increment consumption analysis, noting that "it has worked to develop policies and procedures designed to ensure consistency and protection of Class I *increment*." Response to SELC Petition at 4 (emphasis added). VDAPC further responds that its consistent policy has been to "require analyses of the cumulative impact due to appropriate class I *increment-consuming* sources within 100 km of" the Wilderness. *Id.* (Emphasis added.)

We find VDAPC's reference to the increment consumption analysis unresponsive to the issue of adverse impact analysis, which, as the Clean Air Act makes plain, is separate.³⁴ The increment consumption analysis focuses on whether and to what extent the proposed source will consume any of the available increment. An adverse impact, which may exist even if no increment is violated, *see* CAA §165(d)(2)(C)(ii), focuses on broader concerns, namely, whether emissions from the proposed source will have an adverse impact on AQRVs such as visibility or vegetation.

VDAPC's response indicates that no sources beyond 100 km of the class I areas were included in the cumulative impact analysis. Unlike VDAPC's policy for increment consumption, however, there is no 100 km cut-off for requiring an adverse impact determination. *See* CAA §165(d)(2)(C)(ii). *See also, Old Dominion* (adverse impact determination submitted for Park, 135 km from facility). VDAPC's response indicates that it also did not consider any non-increment-consuming source within 100 km of the class I areas, even though such sources, if they exist, may contribute to an adverse impact on the class I areas. Accordingly, we conclude that based on the record before us, it is not clear that VDAPC conducted separate increment consumption and adverse impact analyses. When assessing the adverse impact determinations on remand, VDAPC is required to consider the cumulative impact of all previously permitted PSD sources on the class I area.³⁵

³⁴ Indeed, VDAPC relies upon this distinction in its argument that the Park AID was properly rejected because class I increment significance levels are not relevant to adverse impact determinations.

³⁵ This is not to say that there is no reasonable cut-off based on distance, so that sources beyond that distance need not be considered in an adverse impact analysis. This cut-off is best determined by the permitting authority on a case-by-case basis. When determining if a source contributes to an adverse impact, the source's distance from the class I area is an appropriate consideration.

SELC also asserts that VDAPC erroneously rejected the role of episodic deposition of sulfur (as the result of storms) in causing an adverse impact. VDAPC responds that the FLM did not quantify the impact of such episodic deposition. SELC replies that quantification is not required because the adverse impact is quantified and it is "well accepted" that episodic deposition will exacerbate the adverse impact. SELC Petition, at 15. We agree that the FLM has failed to quantify the impact of Hadson Power's proposed emissions in light of storm episodes. Although the Wilderness FLM has quantified an impact from the proposed emissions, namely increased sulfur deposition, there has been no demonstration as to how or to what extent this impact would be exacerbated by storms.³⁶ We reject SELC's argument that VDAPC erred in this respect.

In addition, SELC contends that VDAPC clearly erred by issuing the permit without requiring offsets to eliminate the adverse impact. SELC Petition at 18. This argument presupposes that there is an adverse impact to offset, and that offsets are required by law. SELC contends that because VDAPC "has failed to provide any reasonable basis for rejecting the FLM's findings of adverse impact, these findings stand." *Id.* SELC's argument, in essence, is that an otherwise unsatisfactory adverse impact determination would have to be accepted merely because the permitting authority articulated inappropriate reasons for rejecting it. We disagree. In such circumstances, a remand for reconsideration would be the most appropriate relief. In addition, even if an adverse impact is determined to exist, offsets are not required by law, although they have been recognized as a means to alleviate an adverse impact, thus allowing a permit to issue. See *In re Multitrade Limited Partnership*, PSD Appeal Nos. 91-2 *et alia*, (Adm'r, Remand Order and Dismissal of Petitions for Review, Jan. 21, 1992). Accordingly, SELC's argument is without merit.

C. *The Park*

In September 1990, the Park FLM publicized its preliminary conclusion that AQRVs in the Park are currently experiencing adverse impacts, and that emissions from Hadson Power and other proposed facilities would exacerbate

³⁶ The Wilderness FLM merely asserted that "[a]cute pulses of sulfate in precipitation during storms can be responsible for increases in acidity" and that 21% of the precipitation in the area comes from the direction of the proposed source. Wilderness AID at 4. From this, the FLM concludes that Hadson Power's proposed emissions would "frequently add to the acidity of precipitation at the Wilderness." *Id.*

these already adverse conditions.³⁷ On January 3, 1992, VDAPC rejected these preliminary determinations, largely for the same reasons it rejected them in *Old Dominion*.³⁸

In *Old Dominion*, the Administrator was not persuaded by the Park FLM's reasoning "that since certain [AQRVs], visibility primarily, are subject to deterioration in the Park, the addition of new sources of pollution * * * will by necessity only exacerbate existing impaired conditions." *Old Dominion*, unpub. op. at 9. The Administrator concluded that the Park FLM had failed to demonstrate a causal link between the source and the predicted impact. Without this link, the Park FLM's determination rested on the unproven and unacceptable assumption that any increase in pollutants produces an adverse impact. VDAPC rejected modeling performed by the Park on the ground that it overstated impacts. VDAPC instead relied upon modeling performed by Region III, which did not confirm the Park FLM's findings. Because VDAPC did not abuse its discretion in rejecting the adverse impact determination, VDAPC's reliance on other grounds, namely the absence of *de minimis* criteria, was harmless error.

Following the *Old Dominion* decision, the Park FLM submitted a final adverse impact determination during the public comment period on Hadson Power's draft permit. Instead of performing its own modeling, the Park FLM relied upon Hadson Power's modeling, which shows that the proposed facility will annually contribute as much as .33 ug/m³ of NO₂ in the Park.³⁹ This amount is three times greater than Virginia's class I increment consumption significance level. According to the Park FLM, this quantified ambient impact on air quality in the Park will exacerbate already adverse conditions in the Park. The Park FLM described this impact qualitatively, concluding that this amount of increase in NO₂ will: (1) contribute to already high ozone levels in the Park, thus impacting ozone

³⁷ See 55 Fed. Reg. 38,404 (Sept. 18, 1990).

³⁸ SELC also argues that in the January 3, 1992 response to the Park FLM's preliminary adverse impact determination, VDAPC said that it needs EPA guidance on the impact of the 1990 Clean Air Act Amendments (the "Amendments") before it can determine if there is an adverse impact on AQRVs in the Park. The Amendments, which were enacted prior to the issuance of this permit, are intended to reduce acid deposition and ozone pollution, and to increase visibility. SELC argues that VDAPC cannot rely on the benefits to be produced by the Amendments as a basis for rejecting an adverse impact determination. Because the statement at issue was made on January 3, 1992, before the draft permit issued in this case, and was not made in response to the Park FLM's final adverse impact determination, it is irrelevant to these proceedings.

³⁹ SELC contends and VDAPC does not dispute that NO₂ can be used to represent all nitrogen compounds. See SELC Petition, at 7 n.5.

sensitive vegetation, (2) deposit additional nitrogen in sensitive streams and soils, and (3) exacerbate already adverse visibility conditions. Park AID at 1.

VDAPC agrees that the AQRVs in the Park are currently experiencing adverse impacts. VDAPC Memo. at 5-13. Nevertheless, VDAPC rejected this adverse impact determination on the ground that the Park FLM failed to demonstrate that Hadson Power would significantly worsen the impacts. *Id.* Specifically, VDAPC noted that "current tools are inadequate to demonstrate *individual* source impacts, especially in light of pollutant contributions from other states," and that "[t]he FLM's position that *any* emission increase is unacceptable is contrary to the concept of [a] *de minimis* [impact] which has been part of both the PSD and nonattainment area provisions for a number of years." VDAPC Memo. at 5-85 (emphases added). In other words, VDAPC argues as it did in *Old Dominion* that the Park FLM failed to provide a link between the proposed facility and the predicted adverse impact. Addressing the amount of NO₂ predicted to reach the Park and the three specific adverse impacts identified by the Park FLM, VDAPC concluded that there is a lack of scientific and EPA consensus on assessing ozone impacts due to NO_x emissions, and that this lack of consensus "raises serious questions about the credibility of any modeling of point source impacts." VDAPC Memo. at 5-86.

On appeal, SELC contends that VDAPC clearly erred in rejecting the adverse impact determination because, in contrast to the situation in *Old Dominion*, the Park FLM did not rely on the assumption that any increase in pollutants produces an adverse impact. Instead, SELC notes, the Park FLM concluded that Hadson Power's modeled impact on air quality in the park (an annual contribution of .33 ug/m³ NO₂), will exacerbate already threatened AQRVs in the Park. SELC argues that VDAPC erroneously disregarded this analysis, and relied upon reasoning rejected in *Old Dominion*.⁴⁰

VDAPC responds that "[w]hile air quality modeling performed by Hadson does quantify the NO₂ impact upon the [Park], the impact cannot be legitimately compared to the class I increment significance levels adopted by Virginia." Response to SELC Petition at 2. VDAPC further responds that because significant impact levels cannot be used "in the context of adverse

⁴⁰ SELC makes several arguments that apply to VDAPC's rejection of both the Park and the Wilderness FLM's adverse impact determinations. For example, SELC's argument that VDAPC should consider the cumulative impact of all previously permitted facilities applies to both adverse impact determinations. Each of these arguments was addressed with reference to the Wilderness, and there is no need to repeat that discussion here.

impact, and since the National Park Service has not established scientifically accepted minimum impacts below which a specific source's contribution can be considered insignificant, the [Park FLM's] finding of adverse impact is clearly based on the assumption that any additional impact is considered adverse." *Id.* at 3.

We agree with SELC that VDAPC clearly erred by failing to consider the merits of the particular adverse impact determination submitted by the Park FLM in this case. VDAPC made the same mistake here that it made in connection with the Wilderness AID, apparently hoping for the same results as in *Old Dominion* despite the explicit rejection of some of its arguments in that case and the significant factual differences between that case and this case.

The most obvious difference is that here, the Park FLM did not base his adverse impact determination on the assumption that "any" increase in pollutants would produce an impact, but on Hadson Power's modeled NO₂ impact on Park air quality. Unlike the situation in *Old Dominion*, the Park FLM has attempted to link the emissions from Hadson Power's proposed facility with the predicted adverse impact. Also, unlike *Old Dominion*, the Park FLM did not rely on its own modeling, which was reasonably rejected by VDAPC in *Old Dominion*, but upon Hadson Power's. VDAPC's attempts to discredit the modeling for these purposes are not persuasive, because VDAPC relied upon Hadson Power's modeling in other respects, and because VDAPC failed to explain how or why its doubts about the modeling undermine the Park FLM's conclusions.

We do agree with VDAPC that references to the significance levels for determining increment consumption do not, by themselves, establish an adverse impact.⁴¹ But, the Park FLM does not represent that the impact on air quality *is* the adverse impact. Instead, the Park FLM states that AQRVs in the Park are already experiencing adverse impacts, a conclusion with which VDAPC agrees, and that these adverse impacts will be exacerbated by the predicted impact on air quality, specifically, the modeled amount of NO₂ predicted to reach the Park. The adverse impact presented by the Park FLM in this case is not the quantified impact on air quality itself, but the exacerbation of already existing adverse

⁴¹ See Memorandum from John Calcagni, Director, EPA Air Quality Management Division, to Thomas J. Maslany, Director, Region III Air, Radiation and Toxics Division (Sept. 10, 1991) (VDAPC's use of class II increment consumption levels for Hadson Power's class I increment consumption analysis "does *not* include their use for determining whether a source should conduct an adverse impact analysis for any [AQRV] in a class I area, or whether a source would have an adverse impact on an AQRV").

impacts from that air quality impact, which is qualitatively described in the Park AID. While these data do not directly quantify the adverse impact on the AQRVs themselves, and thus may be entitled to less weight than the data presented in the Wilderness AID, they certainly warrant serious substantive consideration.

At a minimum, to fulfill the statutory objective of providing protection to class I areas, VDAPC was obliged to consider the merits of this demonstration, and not summarily dismiss it, which VDAPC appears to have done by erroneously relying on a position flatly rejected in *Old Dominion*, that is, the absence of standards, including a *de minimis* standard, by which to assess the Park FLM's conclusions. For the same reasons discussed with reference to the Wilderness AID, we conclude that such reasoning is clearly erroneous. Again, in contrast to *Old Dominion*, this error is not harmless because the record does not show an alternative, supportable rationale for rejecting the Park AID. Accordingly we direct VDAPC to reevaluate the Park AID on remand.

III. *Best Available Control Technology for NO_x*

SELC asserts in its petition that the permit fails to require best available control technology (BACT) for emissions of NO_x. BACT⁴² is required by 40 C.F.R. §52.21(j)(2) for each pollutant subject to regulation under the Clean Air Act that the facility would have the potential to emit in significant amounts. There is no dispute that BACT is required for NO_x emissions from the Hadson Power plant.

VDAPC determined that BACT for NO_x should be based upon the use of selective catalytic reduction (SCR) technology. SELC agrees with that

⁴² "Best available control technology" is defined in part as:

an emissions limitation * * * based on the maximum degree of reduction for each pollutant subject to regulation under Act which would be emitted from any proposed major stationary source * * * which the Administrator, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such source * * * through application of production processes or available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of such pollutant.

40 C.F.R. §52.21(b)(12).

determination and in fact commends VDAPC for that selection.⁴³ SELC's concern is with how the SCR requirement is translated into permit terms.

Part I, Condition 7 of the permit provides that nitrogen oxide emissions shall be controlled by "a continuous coal feed system, staged combustion, low excess air, and selective catalytic reduction (SCR)." Condition 7 further provides that the SCR system shall be designed, constructed and optimized to achieve a nitrogen oxides emissions rate of 0.10 lbs/10⁶ Btu on a 30-day rolling average. Condition 8 provides that:

In the event that the nitrogen oxides emission rate exceeds 0.10 lbs/10⁶ Btu on a 30-day rolling average, the permittee shall do either or both of the following, as necessary:

- a. Maintain the ammonia-to-nitrogen-oxides mole ratio at the design level, provided that no detrimental effect on equipment downstream of the SCR system occurs.
- b. Replace and/or add catalyst as necessary to achieve a nitrogen oxides emissions limit of 0.10 lbs/10⁶ Btu on a 30-day rolling average to the extent that catalyst replacement or addition does not exceed 50 percent in any 3-year period.

SELC does not object to the 0.10 lbs/10⁶ Btu design level.

However, Part I, Condition 20 of the permit establishes the NO_x emissions limitations applicable to the operation of each primary coal boiler as 0.25 lbs/10⁶ Btu, 94.8 lbs/hr as a 30-day rolling average and 398 tons/yr as an annual average. In a footnote, this limit is characterized as a "worst-case" emission limit in the event of marginal performance or deterioration of the SCR system. SELC takes exception to the 0.25 lbs/10⁶ Btu emission limitation as not reflecting BACT. More specifically, SELC asserts that this limitation "is not the emission limitation based on the maximum degree of reduction considering cost and technical feasibility."⁴⁴

⁴³ SELC Petition at 31.

⁴⁴ SELC Petition at 31.

SELC points out that other coal-fired boilers have been permitted with lower NO_x emission rates using either SCR or selective non-catalytic reduction (SNCR). Most of these have been permitted at 0.17 lbs/10⁶ Btu. SELC further cites as support a letter from EPA Region III to VDAPC during the comment period recommending that the permit limitation be set at 0.10 lbs/10⁶ Btu or 80% control. (The 0.25 rate is based on 50% control.)⁴⁵

In addition, SELC makes reference to a NO_x guideline of 0.15 lbs/10⁶ Btu for new coal-fired boilers adopted in June 1991 by the Virginia Air Pollution Control Board. SELC states that this level can be consistently achieved and improved upon. SELC further states that with a design limit of 0.1 lbs/10⁶ Btu, an operating limitation of 0.15 is "clearly technically and economically feasible." SELC Petition at 32.

VDAPC, in its response, stresses that this is the first application of SCR technology to a spreader-stoker boiler. It also notes that SCR has not been operated commercially on a coal-fired boiler in the United States, although it has been established on pulverized coal-fired boilers in Japan and Germany. In light of this, VDAPC asserts that "[t]he risks involved in a first-time application necessitate more moderate regulation." Response to SELC Petition at 10.

VDAPC elaborates on its concerns by identifying the following as being of primary concern:

- potential differences in the properties of coal used overseas and in this country, and
- potential differences in the characteristics of ash produced by spreader-stoker and pulverized coal firing.

More specifically, VDAPC states that:

[T]he ash produced by a spreader-stoker boiler is more coarse, causing a higher tendency to blind the SCR catalyst. Other differences involve excess air, furnace temperature, furnace volume, and heat transfer surface arrangement. All of these

⁴⁵ SELC Petition at 32 and Appendix L (Letter from Bernard E. Turlinski, Chief, Air Enforcement Branch, Region III, to Wallace N. Davis, Executive Director, VDAPC (Jan. 31, 1992)).

factors affect temperature and temperature fluctuations within the SCR unit, which are critical to optimal SCR performance.

Response to SELC Petition 10-11.

Finally, VDAPC argues that the approach taken at Hadson Power is "totally consistent" with the precedent set by the Chambers Works cogeneration facility in New Jersey, one of the facilities cited in the SELC petition. VDAPC explains that since the Chambers Works' boilers would have had uncontrolled NO_x emissions of 0.27 lbs/10⁶ Btu and the permit sets an emission limitation of 0.17 lbs/10⁶ Btu, it only requires 37% NO_x removal. At Hadson Power, uncontrolled emissions would be at the rate of 0.50 lbs/10⁶ Btu and the emission limitation is 0.25 lbs/10⁶ Btu, thus requiring a 50% reduction. Therefore, the reduction required at Hadson Power is greater, on a percentage basis, than at the Chambers Works. Response to SELC Petition at 11.

In its reply to the VDAPC response, SELC indicates that a permit issued to Orlando Utilities Commission's Curtis E. Stanton Energy Center Second Unit, issued prior to the Hadson Power permit, also set a maximum emission limitation at 0.17 lbs/10⁶ Btu and that the issuance of this and the New Jersey permits demonstrates that SCR with an emission rate of 0.17 lbs/10⁶ Btu or lower is BACT for the Hadson Power plant.

We note that the explanation VDAPC gives in its response to the petition repeats almost verbatim its response to similar comments raised on the draft permit. See Response to Petitions, Attachment IV at 5-71 to 5-72. SELC was undoubtedly aware of the rationale set forth by the VDAPC in its response to comments. Yet, SELC has not explicitly addressed the explanation given by VDAPC in either its petition or its reply. Most significantly, SELC does not address at all the transferability of SCR technology to spreader-stoker boilers.

As previously noted, the petitioner has the burden of demonstrating that review of a permit condition is warranted. Recently, this Board held that "[t]o satisfy the requirements of 40 C.F.R. §124.19(a), it is not enough for [petitioner] to include in its petition for review a mere reference to comments made during the comment period on the draft permit." *In re Adcom Wire*, RCRA Appeal No. 92-2, slip op. at 10 (EAB, Sept. 3, 1992). Instead, §124.19(a) requires a petitioner to "show why the [State's] responses to the issues [raised in the public comment period] are clearly erroneous or involve important policy considerations or exercises of discretion that should be reviewed." *Id.* SELC's failure to respond

to the primary rationale set forth by VDAPC fatally flaws its petition in this regard. As such, review of this issue is denied.

In denying review, we recognize that SELC may ultimately prove correct that a level more stringent than 0.25 lbs/10⁶ Btu can be consistently achieved. Even VDAPC, in its internal documents, seems to have concluded that the use of U.S. coals should not be a significant concern. In referring to the Chambers Works project, VDAPC states:

In issuing the Chambers Works permit, the reviewing authority determined that the coal to be burned at that facility is not significantly different from the coal being burned at successful SCR applications in Germany and Japan. The same determination applies to Hadson Power, as no specific differences in coal quality have been shown.

In support of this determination, the Department has received correspondence from SCR vendors indicating that the constituents of typical Virginia coal are not prohibitive to SCR operation.

VDAPC Memo. at 5-29. Thus, the larger concern seems to be the transferability of SCR technology to a spreader-stoker boiler. In this regard, while acknowledging the technical differences between pulverized coal and spreader-stoker boilers as previously discussed, VDAPC states that "neither the applicant nor the agency's research has shown that the gas stream from a spreader-stoker boiler is physically or chemically different as to preclude the application of this technology." *Id.* While this does not directly address what level of performance can be consistently maintained, it does give some reassurance as to the transferability of the technology.

We also recognize that the permit requires a review of the NO_x emission limitation prior to issuance and each renewal of an operating permit.⁴⁶ It provides that "the Department may revise the NO_x emissions rate downward to reflect the maximum NO_x emissions rate that is demonstrated to be consistently achievable on a 30-day rolling average, not including periods of malfunction." Permit, Part I, Condition 20. We would expect that if the performance of Hadson Power or

⁴⁶ See Virginia Air Pollution Control Regulations §120-08-04(P)(1) (an operating permit may be issued for a term not to exceed five years).

any other spreader-stoker boiler demonstrates the achievability of a more stringent emission limitation, the current limit will be reconsidered and adjusted appropriately.⁴⁷

In the context of its objections to the NO_x emission limitation, SELC raises one further point that needs to be addressed. It notes that although the air quality modeling for the Hadson Power plant is based on a shutdown of boilers at the Georgia Bonded Fibers plant, the permit does not actually require the shutdown of that plant. Instead, it provides that Hadson Power shall cease to operate beyond 90 days after commencing operation unless one of the following occurs:

- i. a restriction that renders the existing boilers at the host facility inoperable is made federally enforceable, or
- ii. the permittee demonstrates that the permittee's facility in concurrent operation with the existing boilers does not increase the net impact on air quality. Such demonstration shall be done in a manner acceptable to the Department.

Permit, Part I, Condition 38(d). SELC expresses a concern that if Hadson Power were operating at a level below 0.25 lbs/10⁶ Btu, Georgia Bonded Fibers could start up and emit the difference between Hadson Power's operating rate and the 0.25 lb. limit, since the air quality analysis was premised on the 0.25 lb. limit. As such, the permit does not provide an incentive to minimize emissions.⁴⁸

Relative to this condition, SELC also states that it should be made more specific. It should either require shutdown of the Georgia Bonded Fiber boilers or, in the alternative, be revised to state the total limit in terms of emissions rather than "net impact on air quality," which SELC finds to be "vague and undefined." SELC Petition at 33.

⁴⁷ We note that as to emissions of ammonia, the permit establishes an emission limitation but indicates that lower limits may be imposed "after review of instack-testing and optimizing the selective catalytic reduction system." While it is possible such an approach could have also been used for NO_x emissions, we recognize that this might not fully address potential deterioration of the SCR system. We do not find the mechanism chosen by VDAPC to deal with the technical uncertainties of application of SCR to spreader-stoker technology to be in clear error.

⁴⁸ A somewhat similar concern is raised by the County. See County Petition at 10.

VDAPC provides a response to this issue in the context of addressing a similar comment made by the County. In its response, VDAPC indicates that "[n]o regulatory framework is in place for the department to apply an emissions cap to a select number of facilities in attaining the ambient air standards. In addition, VDAPC regulations do not allow the operation of Georgia Bonded Fibers to be governed by a permit issued to Hadson Power 14 - Buena Vista." Response to County Petition at 13.

Conceding to VDAPC that it cannot regulate the Georgia Bonded Fibers facility directly in the Hadson Power permit, that still does not fully respond to the concern raised by the petitioners. Clearly, if appropriate, VDAPC can regulate the conduct of Hadson Power based on whether the Georgia Bonded Fibers boilers are operating, thus addressing the issue of concurrent operation raised by the County and SELC (and not specifically addressed by VDAPC).

While SELC links this issue with the NO_x BACT issue, we think this linkage is tenuous at best. The BACT limit for Hadson Power is in no way dependent upon the availability of offsets at Georgia Bonded Fibers. SELC may be assuming that even if the permit contained an emission limit of 0.15 or 0.17 lbs/ 10^6 Btu that the provision relating to concurrent operation would be the same, thus lowering total emissions. However, it is equally possible that modeling with the lower emission limit could reduce or eliminate the need for offsets for NO_x entirely, resulting in the deletion of the offset provision as it relates to NO_x . We decline to speculate on this.⁴⁹

More important is whether the condition is consistent with the assumptions made in the underlying air quality modeling. The modeling assumed that Hadson Power would be operating at a 0.25 lbs/ 10^6 Btu limit and that the boilers at Georgia Bonded Fibers would be shut down. The permit provision objected to by SELC and the County allows continued operation of the existing boilers if this "does not increase the net impact of air quality," demonstrated "in a manner acceptable to [VDAPC]." We assume the "increase" is measured relative to the scenario as modeled, i.e., with Hadson Power operating at its allowable emission limitation and with the Georgia Bonded Fibers boilers shut down. We do not find that allowing this additional flexibility, with the limitations

⁴⁹ While SELC objects that Permit, Part I, Condition 38(d) "does not provide incentive for emissions from Hadson Power and Georgia Bonded to be minimized," SELC Petition at 33, it does not cite any legal requirement for the combined emissions to be minimized.

as specified, in any way allows adverse impacts beyond those considered in the underlying model and we find no error in its formulation.

IV. *Air Quality Modeling*

Air quality models attempt to describe the course of pollutants as they leave the source by quantifying the qualities of air pollution transport "to provide numerical estimates of ground level concentrations based upon facility and meteorological parameters." J. Bromberg, *Clean Air Act Handbook*, at 86 (2d ed. 1985). PSD permit applicants use modeling to demonstrate compliance with the requirements for obtaining a permit. For example, Hadson Power used modeling in this case to demonstrate that its proposed emissions would not cause or contribute significantly to a violation of the available increments, and the FLMs used Hadson Power's modeling results in their adverse impact determinations.

SELC and the County contend that Hadson Power's modeling does not adequately consider local topography and meteorology. *See* SELC Petition at 33-35. SELC asserts that due to Hadson Power's proposed location in a valley of the Blue Ridge Mountains, the site is subject to frequent temperature inversions and air stagnation, and that these conditions were not considered in the modeling.⁵⁰

The County similarly argues that the meteorological and air quality data collected by Hadson Power are incomplete, unreliable, inaccurate and unsuitable.⁵¹ The County argues that these faulty data render the modeling results suspect.

Both SELC's and the County's petitions fail to articulate adequately a substantive basis for review. The County's petition for review consists of a letter stating that:

The County takes exception to several conditions of the final permit and *herein reiterates its opposition to the issuance of*

⁵⁰ Specifically, SELC protests the use of air stability data collected in Greensboro, N.C., a non-valley location. SELC is also dissatisfied that the air quality data used in the modelling were collected from September to April, and do not include the summer when air stagnation frequently occurs. SELC contends that these limited data conflict with VDAPC regulations requiring a full year's worth of data unless it is determined that a complete and adequate analysis can be performed using data from a shorter period. Virginia Air Pollution Control Regulations §120-08-02(N)(1)(d).

⁵¹ For example, the County also contests the use of meteorological data collected in Greensboro, N.C.

the permit as it set forth in its "COMMENTS OF THE COUNTY OF ROCKBRIDGE, VIRGINIA IN OPPOSITION TO THE ISSUANCE OF THE AIR PERMIT," which comments are attached hereto and incorporated herein by reference.

County Petition at 1 (emphasis added). In other words, the grounds for review asserted in the County's petition are identical to the County's comments on Hadson Power's draft permit.⁵² SELC's petition to review the air quality data also repeats comments made by it and others on the draft permit.⁵³ Neither petitioner makes an argument which addresses the adequacy of VDAPC's response to those comments.⁵⁴ In this case, VDAPC provided significant, substantial responses to the comments on these issues. VDAPC Memo. at 5-49 to 5-69. Because the County and SELC failed to meet the requirement of §124.19 to address these responses, we deny review of the various substantive issues raised relative to the air quality analyses. *See Adcom Wire, supra*.

SELC raises another issue, concerning the public notice of the models that were used in this case. The Clean Air Act requires the Agency to specify the air quality models to be used for PSD permits. CAA §165(e)(3)(d). These models are listed in the "Guideline on Air Quality Models (Revised)" (1986) and Supplement A (1987) (hereinafter collectively "Guidelines"). *See* 40 C.F.R. §52.21(l). If the recommended models are inappropriate in a given case, other non-Guideline models may be used pursuant to 40 C.F.R. §52.21(l). That section provides that "[w]ritten approval of the Administrator must be obtained for any" non-Guideline model. "In addition, use of a modified or substituted model must

⁵² The County raises one additional issue in its letter that it did not raise in its comments on the draft permit, namely that VDAPC failed to consider seriously the adverse impact determinations, an argument addressed *supra*.

⁵³ SELC's petition refers to, and includes as attachments, the comments made on the draft permit by Dr. Michael Williams, Edgar W. Spencer, Edwin J. Goller and the County. SELC Petition at 34.

⁵⁴ The only exception to this is SELC's reference to VDAPC's response that it collected data for a period less than one year because historical data gathered elsewhere showed that a complete and adequate analysis could be made with less data. SELC Petition, at 35. SELC asserts that "[g]iven Buena Vista's unique meteorological conditions, it is clear error to rely on historical air quality data gathered in other areas as a basis for conditions in the Buena Vista valley." *Id.* SELC's mere allegation of clear error is far from satisfying its burden under §124.19 of providing a "statement of reasons" showing that the permit is based on clear error. *See In re Waste-Tech Services and BP Chemicals America, Inc.*, RCRA Appeal No. 88-8, unpub. op. at n.2 (Adm'r, Sept. 22, 1988) ("petition for review must not only *identify* disputed issues, but *demonstrate* that special and important reasons necessitate review").

be subject to notice and opportunity for public comment * * *." *Id.* The Virginia permitting regulation contains an identical requirement. *See* Virginia Air Pollution Control Regulations §120-08-02(M)(2).

In this case, the models contained in the Guidelines were apparently not appropriate given Hadson Power's proposed location, and so Hadson Power sought and obtained VDAPC and EPA approval to use a non-Guideline model.⁵⁵ VDAPC failed, however, to submit this non-Guideline model to notice and comment prior to its use.

SELC contends that state and federal regulations require public notice and comment *before* a non-Guideline model may be used, and that such notice cannot be provided in connection with the draft permit, which is "issued long after the decision to use the model is made and [therefore] does not give the public an opportunity to affect the choice of models." SELC Petition at 36. In any event, SELC notes, the notice of the draft permit and public hearing in this case did not indicate Hadson Power's use of a non-Guideline model.

SELC is correct that there is a regulatory obligation to submit a non-Guideline model to notice and public comment. However, the federal regulation, §52.21(l), provides that such notice and opportunity for comment shall proceed in accordance with the procedures developed for public participation in the process of issuing a permit.⁵⁶ The same is true of the Virginia regulation.⁵⁷ We

⁵⁵ As described by VDAPC:

Because the applicant's proposed location is in complex terrain and within 100 kilometers of two Class I areas, some unique problems were encountered during the modeling analysis of air quality impacts. In order to determine the maximum impact on receptors located at elevations between the stack top and the plume height (intermediate terrain), it was necessary for Hadson-14 to develop a model that would compare results from the simple terrain and complex terrain models in this region where the models overlap. The worst case from either model would be selected and incorporated into the overall model output. Because no such model has been approved by EPA for general use, Hadson-14 created a hybrid model, ISCSTCPX, based on two established EPA models (ISCST and COMPLEX 1); EPA approved ISCSTCPX in May 1991.

VDAPC Memo. at 5-3.

⁵⁶ This regulation provides that use of a non-Guideline model "must be subject to notice and opportunity for public comment under procedures developed in accordance with paragraph (q) of this (continued...)"

interpret this regulatory language as allowing the notice and opportunity for public comment on the use of a non-Guideline model to be provided with the notice and opportunity for public comment on the draft permit. SELC agrees that there is no explicit regulatory language requiring notice and comment on the non-Guideline model prior to that stage of the proceedings, instead arguing that the regulations implicitly require notice and comment on a non-Guideline model prior to its use, which would be prior to the draft permit.⁵⁶ SELC Petition at 36 n.19. In light of the clear reference in §52.21(l) to the permitting procedures in Part 124, however, we decline to go beyond this language and search for an alleged implicit requirement.

SELC further contends that VDAPC's notice of Hadson Power's draft permit failed to mention the use of the non-Guideline model. VDAPC disagrees, noting that "all appropriate information including * * * the air quality analyses * * * could be reviewed by the public at local libraries in Buena Vista and Lexington" and at the local VDAPC office in Roanoke. Response to SELC Petition at 13. In addition, VDAPC notes that the notice of the draft permit indicated that an informal briefing would take place on January 15, 1992. At this briefing, VDAPC staff discussed the model used by Hadson Power in the air quality analysis. *Id.*

We are not persuaded by VDAPC's response, which is strikingly similar to its explanation for failing to include in the notice the predicted amount of increment consumption in the Park. For the same reasons discussed above with reference to increment consumption, VDAPC's failure to mention the non-Guideline model in the public notice of the draft permit and public hearing deprived the public of a meaningful opportunity to comment on the draft permit. VDAPC is required, in connection with any public notice necessitated by its

⁵⁶(...continued)

section." Paragraph (q) requires the application of 40 C.F.R. Part 124, which "contains EPA procedures for issuing, modifying, revoking and reissuing or terminating all * * * PSD permits * * *." 40 C.F.R. §124.1.

⁵⁷ Virginia Air Pollution Control Regulations §120-08-02(M)(2) provides that notice and comment on the use of non-Guideline models should proceed in accordance with subsection (R), which in turn provides for public notice of, among other things, VDAPC's preliminary determination on the permit application.

⁵⁸ According to SELC, this implicit requirement stems from the fact that to be included in the Guidelines, a model must be subject to notice and comment. SELC Petition at 36 n.19 (*citing* 42 U.S.C. §7475(e)(3); 43 Fed. Reg. 26,399 (June 19, 1978)). SELC's argument overlooks that Hadson Power's model is not to be included in the Guidelines for future application without further public notice, but was used in this case only.

response to the remand ordered by this decision, to give notice of the non-Guideline model used by Hadson Power. Comments on the model may persuade the state that some changes to the model are appropriate. Further, any comments could support a renewed challenge to the modeling assumptions in any further appeal after completion of the remand if properly made in light of *Adcom Wire, supra*.

V. National Park Service Environmental Assessment

Hadson Power proposed that its facility be serviced by a coal conveyor and utility improvements running between it and Georgia Bonded Fibers. The coal conveyor and utility improvements (steam, condensate and water lines) would run through Glen Maury Park, a park owned by the City of Buena Vista and supported by federal funds under the Land and Water Conservation Fund Act, 16 U.S.C. §460l-8(f)(3). Accordingly, the Department of the Interior (DOI) must approve the use of Glen Maury Park for this purpose.

The City of Buena Vista requested such approval. The DOI, through the National Park Service (NPS), notified the public that it would prepare an environmental assessment of the proposed coal conveyor and utility improvements in order to determine whether to prepare an environmental impact statement under the National Environmental Policy Act (NEPA), 42 U.S.C. §4332. *See* 57 Fed. Reg. 2,928 (Jan. 24, 1992). While this appeal was pending, and before the NPS completed its environmental review, Hadson Power notified the City of Buena Vista that it is abandoning its plans to use the coal conveyor, and will instead rely upon truck delivery of coal. Hadson Power informed the City of Buena Vista that it is contemplating rerouting the utility improvements to avoid Glen Maury Park.

In response to CLEAR's comment that VDAPC should defer consideration of the permit application until NPS completes its environmental review pursuant to NEPA, VDAPC stated that the outcome of the NEPA process would have no affect on the PSD permit decision because "Hadson Power included fuel delivery by truck in its analyses as a contingent if the conveyor system could not be utilized. The VDAPC has evaluated both alternatives and found them to be in accordance with PSD requirements." VDAPC Memo. at 5-41.

On appeal, CLEAR asserts that VDAPC's response is inadequate because it fails to explain why "it would not have been 'feasible' or 'reasonable' to await the completion of a [NEPA] review that will certainly provide a wealth of

information relating to the environmental impacts of the Buena Vista plant" as required by 40 C.F.R. §52.21(s) and Virginia Air Pollution Control Regulations §120-08-02(T). CLEAR Petition at 4. CLEAR contends that by "refusing to defer consideration of the permit and thereby allowing the project to go forward, VDAPC undermined the efficacy of the NEPA review." *Id.* CLEAR also asserts in contradiction to VDAPC that the air quality analysis submitted by Hadson Power assumed coal delivery by conveyor, and did not include the possibility of delivery by truck, and therefore the permit is based on air quality data that do not reflect the true situation. CLEAR Reply at 2-3.⁵⁹

NEPA §102(2)(C) requires that an environmental impact statement shall be included "in every recommendation or report on * * * major federal actions significantly affecting the quality of the human environment." 42 U.S.C. §4332(2)(C). Federal approval of private actions is a federal action which may trigger the need for an environmental impact statement under NEPA. 40 C.F.R. §1508.18(a). The NPS is currently proceeding with its obligations under these provisions in connection with the proposed use of the Glen Maury Park.

The federal PSD regulations provide that

Whenever any proposed source or modification is subject to action by a Federal Agency which might necessitate preparation of an environmental impact statement pursuant to the National Environmental Policy Act * * *, review by the Administrator conducted pursuant to this section shall be coordinated with the broad environmental reviews under that Act * * * to the maximum extent feasible and reasonable.

40 C.F.R. §52.21(s). The Virginia regulation is virtually identical. *See* Virginia Air Pollution Control Regulations §120-02-08(T).

Under the plain language of this regulation, *coordination* is all that is required of the PSD permitting authority, and only to the extent feasible and reasonable. As used in this regulation, "coordinate" is best given its everyday meaning, namely to harmonize or to act together in a concerted way. In our view,

⁵⁹ The County also contends that VDAPC should not issue the permit until the pending NEPA process is complete. The County merely repeats the comments it made on the draft permit without explaining how or why VDAPC's responses to the comments are inadequate, and thereby fails to comply with the requirements of 40 C.F.R. §124.19. *See Adcom Wire, supra*. Accordingly, we deny review of the County's claims.

then, this regulation does not require a state to refrain from issuing a PSD permit until the NEPA review process is complete. Accordingly, we reject CLEAR's argument that VDAPC clearly erred by failing to defer consideration of this PSD permit until NPS completes its review of the proposed easement for Glen Maury Park.⁶⁰ We also disagree with CLEAR's argument that deferring the permit is necessary because the NEPA review would provide a wealth of information relating to the impact of the proposed facility. To the extent information would be relevant to the PSD permit, such information should have already been supplied in the PSD permit process. If VDAPC believed any relevant information was lacking, it is authorized to request such information under Virginia Air Pollution Control Regulations §120-08-02(R).⁶¹ There is nothing in the record to suggest, and CLEAR does not demonstrate, that VDAPC lacked information relevant to the PSD permit proceeding that would be provided in the NEPA process.

Moreover, we conclude that VDAPC sufficiently explained why coordination with the NPS should not be required in this case. The only portion of the NEPA review relevant to this permit proceeding is that pertaining to the coal conveyance.⁶² Hadson Power's recent decision to abandon the plans for coal conveyance across Glen Maury Park eliminates any need to await completion of the NPS NEPA review. Even if the coal conveyance option were still pending, VDAPC indicates that its permit decision is based on an air quality analysis that included the truck delivery option, and therefore the outcome of the NEPA review is irrelevant. The record supports this conclusion.⁶³ Because the outcome of the NEPA review would not provide any significant new information to the proceeding, or change the outcome, we agree with VDAPC that coordination of the PSD permit process and the NEPA review process is not reasonably required in this case.

⁶⁰ There may be times where the federal action triggering NEPA requirements involves the proposed source itself. In those circumstances, which are not present here, waiting for completion of the NEPA process may be appropriate.

⁶¹ That regulation provides, in part, that VDAPC "shall advise the applicant of any deficiency in the application or in the information submitted." *See also* 40 C.F.R. §124.3(c) ("the Regional Administrator may request additional information from an applicant but only when necessary to clarify, modify, or supplement previously submitted material").

⁶² There is nothing in the record that indicates how or why the utility improvements relate to the PSD permit.

⁶³ *See* VDAPC Memo. at 5-36 ("The information submitted by Hadson Power suggests that the plant requires * * * either one train locomotive or up to 40 coal trucks each day") and 5-38 ("The Hadson Power air quality analysis did include potential fugitive dust from coal handling operations (rail and truck transfer options, storage, and crushing).").

CONCLUSION

For the reasons set forth above, the Board remands this permit to the State:

1. to describe emissions related to the construction of Hadson Power and to include such emissions in the air quality analysis or demonstrate why they can be properly excluded;
2. to determine whether the Wilderness FLM demonstrated that Hadson Power's proposed emissions will adversely impact AQRVs in the Wilderness; and
3. to determine whether the Park FLM demonstrated that Hadson Power's proposed emissions will adversely impact AQRVs in the Park.

VDAPC is hereby directed to reopen the permit proceedings for the limited purpose of reconsidering these issues in a manner consistent with this opinion. After reconsidering these issues, VDAPC shall reissue a draft permit and reopen the public comment period to allow comments on its reconsideration. The notice of the public comment period shall be in accordance with all applicable federal and state regulations, and shall provide for public comment, in accordance with this opinion, on all increment to be consumed by the proposed source (including any increment to be consumed at the Park), and Hadson Power's use of a non-Guideline model in its air quality analyses. The State's final permit decision is subject to review under 40 C.F.R. §124.19, and appeal of the remand proceedings is required to exhaust administrative remedies under 40 C.F.R. §124.19(f)(iii).

Review of all other issues raised in the petitions for review is denied.

So ordered.